

NOTES ON PLEISTOCENE AND RECENT SHELLS FROM CRETE.

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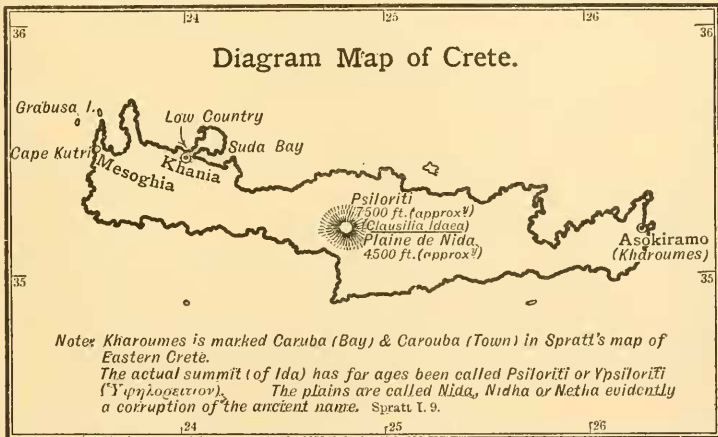
THE shells enumerated in the following notes were brought from Crete by Miss Dorothea M. A. Bate, and came into my possession last January.

A. PLEISTOCENE SHELLS.

These came from two cave-deposits, and were introduced into their position under different conditions.

(1) Two small red masses of cave-breccia contain land shells only. All the specimens seem to be identical, but of different stages of growth. They are referable to *Helix pellita*, Fér.

Pilsbry records *H. pellita* as a recent shell from Morca, Syra, and Rhodes. The present communication seems to be its first record in a fossil state.



Locality.—Pleistocene cave-deposit (upper layers) at Kharoumes, East Crete. (Asokiramo in the French military map, that of the Service géographique de l'Armée.)

(2) A small fragment of mammalian bone contains only marine shells and fragments. The largest is referable to *Calliostoma Laugierii* (Payraudeau), although its whorls are rather more tumid than those of recent specimens.

There is likewise a small fragment of a *Cardium*-like shell and of a Bryozoan colony (probably identifiable) adherent to the bone.

There are also a few nepionic shells, probably of the above-named species of *Calliostoma*. All are hardened by limestone infiltration and cemented to the bone fragment.

Locality.—Pleistocene cave-deposit at Kutri, West Crete.

Miss Bate gives evidence that the coast-level at Kutri has been lowered,¹ enabling the sea to break into the cave and wash away the greater part of the deposit. Later on, this coast had attained its present level, probably within historic times. In the same cave she discovered a quantity of sea-sand which had found its way into a crevice, and a number of other shells, which, recognizing as marine, she did not preserve.

B. RECENT SHELLS.

The following species were found in the low country between Khania and Suda Bay, North Crete:—*Helix aspersa*,² Müll.; *Pisana*,² Müll.; *vermiculata*,² Müll.; *aperta*,² Born; *Helicella Cretica*, Fér.; *Chondrula (Buliminus) pupa*, Fér.; *Clausilia candida*, Pfr.; *Stenogyra (Rumina) decollata*,² Linn., a very stunted form; *Vitrea* sp.; *Melanopsis laevigata*, Lam.; *Neritina fluvialilis*, Linn.

The following are from Mesoghia,³ an isolated homestead near and inland from Kutri, West Crete:—*Oleacina Algira*, Brug., young specimens; *Buliminus olivaceus*, Pfr.; *Clausilia Arthuriana*, Blanc.; *Grabusana*, Boettg.

The following comes from Psiloriti (anciently Mount Ida) at 4,500 feet O.D.⁴:—*Clausilia Idæa*, Pfr.

A solitary specimen in the British Museum is labelled as from 5,500 feet O.D.; the species occurs on limestone.⁵

Note.—The fossil shells have been given to the Geological Department, British Museum.

¹ "Search for Pleistocene Mammalia in Crete": Geol. Mag., May, 1905, p. 197.
See also Spratt: "Travels and Researches in Crete," vol. ii, ch. xix; London, 1865.

² Eaten in large quantities by the natives (Miss Bate in litt.).

³ Bate: op. cit., p. 197, et in litt.

⁴ O.D., see note, p. 313.

⁵ Bate: in litt.